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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,295	04/28/2005	Takuma Iida	MATS:049	8664
7590 10/26/2005			EXAMINER	
Rossi & Associates PO Box 826 Ashburn, VA 20146-0826			TIBBITS, PIA FLORENCE	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/506,295

Applicant(s)

IIDA ET AL.

Examiner

Pia F. Tibbits

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

This Office action is in answer to the amendment filed 9/21/2005. Claims 1-18 are pending, of which claims 1-3, 8-10 are amended, and claims 17 and 18 are added.

Priority

1. This application is a national stage entry of PCT/JP03/15534.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the unit battery, the switch, the predetermined time, the another predetermined time, the final discharge voltage must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the conventional names, as described in the specification and in table 4, e.g. temperature sensor, display, etc. for the elements shown in figures 1 and 2 with non-conventional symbols. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the

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immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. Applicant is reminded to use **consistent language throughout the disclosure** in order to facilitate finding support for the recited limitations, as well as to provide proper antecedence for all claimed limitations. An applicant is entitled to be his or her own lexicographer. However, any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention."

Multiform Desiccants Inc. v. Medzam Ltd., 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998). See also MPEP § 2111.01. For example, claim 1 recites a "switch", while the specification and fig.1 describe a "charging current interrupter".

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claims 2 and 3, the recitation "the operational control circuit is provided with a non-detecting timer for **preventing the sensors from detecting the voltage** during a predetermined time period" contradicts the next recitation "the operational control circuit counts a number of times that the **voltage** of the batteries **exceeds a preset voltage** within **the** predetermined time period". To continue prosecution it was assumed that the operational control circuit 26 periodically computes, the average voltage for a predetermined time period and outputs a corrected voltage.

In claim 3, the use of "or" makes the claim language confusing because it is not clear what applicant is actually claiming. Furthermore, applicant is reminded that "or" should only be used with alternate terms, e.g., rod or bars, etc.

In claim 4, "or longer time" is indefinite.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 7-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Reher** [5321627] in view of **Nagata et al.** [hereinafter Nagata][6653819] in view of Prior Art disclosed by applicant **JP-08223812** [hereinafter JP].

Claim 1: The functional recitation "for displaying" has not been given patentable weight because it is narrative in form.

Applicant used repeatedly functional recitations in the claims, e.g., "for controlling", "for displaying", which broaden the scope of the claims. Therefore, at the outset, the examiner notes that claims are to be given their broadest reasonable interpretation during prosecution. *In re Zletz*, 893 F 2d 319, 321, 13 USPQ 2d 1320, 1322 (Fed. Cir. 1989); *In re Pratner*, 415 F 2d 1393, 1404, 162 USPQ 541,

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550 (CCPA 1969); *In re Yamamoto*, 740 F 2d 1569, 222 USPQ 934 (Fed. Cir. 1984); *Burlington Indus. V. Quigg*, 822 F 2d 1581, 3 USPQ 1436 (Fed. Cir. 1987); *In re Morris*, 43 USPQ 2d 1753, 1756 (Fed. Cir. 1997). In responding to this Office action, applicants are reminded of the requirements of 37 CFR 1.111 and 1.119 that applicants specifically point out the specific distinctions believed to render the claims patentable over the references in presenting responsive arguments. See MPEP 714.02. The support of any amendments made should also be specifically pointed out. See MPEP 2163.06.

During patent examination, the pending claims must be "given their broadest reasonable interpretation **consistent** with the specification." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).

Reher discloses in figures 1-5 a battery package 12 comprising: a group of batteries [see fig.1] having a plurality of connected secondary batteries; a plurality of sensors for detecting a temperature 22 and a voltage 20; a display device 32 for displaying a condition of the group of batteries 12; and an operational control circuit 26 for generating a signal based on signals input from the plurality of sensors to make the display device display the condition of the group of batteries [see fig.1], wherein the battery package 12 is further provided with a refreshing demand display device for displaying a need to initiate a refreshing charge and discharge. Reher does not disclose a switch for controlling charge and discharge of the group of batteries and to activate the switch and a refreshing demand display device.

Nagata discloses a refresh charge control device including a switching power transistor [see column 5, line 50] where the controller interrupts the refresh charge when the discharge demand is performed after starting the refresh charge of the battery and restarts the refresh charge when the discharge demand is released, the battery can be appropriately discharged even after the start of the refresh charge, and thus the operation of the electric load can be ensured. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Reher's apparatus and include a switching power transistor, as disclosed by Nagata, in order to better control and decrease the response time to a charge/discharge of the battery.

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Reher and Nagata do not disclose a refreshing demand display device

JP discloses in the abstract when the need of refreshing operation arises, a driving signal is outputted to a display circuit 9 and a refreshing drive signal is outputted to a charger and after that, a charging start flag is set in order to efficiently charge a storage battery by displaying the need of refreshing operation for recovering the capacity of a storage battery on the basis of the detected result. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Reher's and Nagata's apparatus, and include a refreshing demand display device 9, as disclosed by JP, in order to efficiently charge a storage battery and allow a user to stay informed.

As to claim 2, Reher discloses the operational control circuit 26 periodically computes, the average voltage for a predetermined time period and a corrected voltage as a total of internal resistance voltage loss and average voltage with the state of charge being determined as a function of corrected battery voltage [column 2, lines 62-67].

As to claims 3, 7, 17 see remarks and references above.

As to claim 4, the recovery voltage not exceeding 1.15 volts: it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a selection for the recovery voltage in order to satisfy an application specific requirement, since it has been held that discovering an "optimum" or "preferred" value for a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

As to the method claims 8-16, 18: the method steps will be met during the normal operation of the apparatus described above.

9. Claims 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Reher, Nagata and JP** in view of **Yamano et al.** [hereinafter Yamano][4636445].

As to claim 5, Reher, Nagata and JP do not disclose the batteries comprising an alkaline storage battery provided with a positive electrode mainly composed of a nickel oxide, a negative electrode, a separator, and an alkaline electrolyte.

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Yamano discloses an alkaline storage battery provided with a positive electrode mainly composed of a nickel oxide, a negative electrode, a separator, and an alkaline electrolyte [see abstract; column 3, lines 54-56; column 4, lines 32-36].

As to claim 6, see remarks and references above.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Information Disclosure Statement

11. The information disclosure statement (IDS) submitted on 8/31/2004 was considered by the examiner. However, since JP-08223812 seems to read on the claims of the instant application, a full translation should be provided.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related apparatus.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Pia Tibbits whose telephone number is 571-272-2086. If unavailable, contact the Supervisory Patent Examiner Mike Sherry whose telephone number is 571-272-2084. The Technology Center Fax number is 571-273-8300.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from

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either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PFT

October 16, 2005

Pia Tibbits

Primary Patent Examiner

